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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,844	10/29/2003	Raphael Duval	PET-1802 D2	2492
23599 7590 03/18/2010 MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
EXAMINER				
HENRY, MICHAEL C				
ART UNIT		PAPER NUMBER		
1623				
NOTIFICATION DATE		DELIVERY MODE		
03/18/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

Office Action Summary

Application No.

10/694,844

Applicant(s)

DUVAL, RAPHAEL

Examiner

MICHAEL C. HENRY

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 26-30 is/are pending in the application.
4a) Of the above claim(s) 1, 6-12, 14 and 16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17, 18, 20, 21, 23 and 26-30 is/are allowed.
- 6) ☒ Claim(s) 2-5, 13, 19, 22 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The following office action is a responsive to the Amendment filed, 12/23/09.

The amendment filed 12/23/09 affects the application, 10/694,844 as follows:

1. Claims 2, 13, 15, 17-22 have been amended. Claims 24-25 have been canceled.

New Claims 26-30 have been added. Claims 1, 6-12, 14 and 16 are withdrawn.

Applicant's amendments have overcome the claims objection and the rejections of the prior office action mailed 09/28/09. However, a new ground(s) rejection set forth herein.

2. The responsive to applicants' arguments is contained herein below.

Claims 1-23 and 26-30 are pending in the application.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

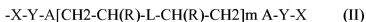
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5, 13, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Katz et al. (Journal of Polymer Science: Polymer Chemistry Edition, Vol. 13, 645-658 (1975)).

Claim 2 is drawn to a support material comprising a cross-linked polymer compound in a three-dimensional network, comprising a radical of general formula (II):



where X represents an oxygen atom or the group -NH, m is an integer other than zero equal at most to 5, R represents a hydrogen atom or a substituted or non-substituted, linear or branched alkyl radical having from 1 to 8 carbon atoms, Y represents a -NH-CO-group, -NH-CS group or -CO-group, A represents a single bond, a linear or branched alkylene radical having from 1 to 21 carbon atoms, an arylene radical having from 6 to 18 carbon atoms or an aralkylene radical having from 7 to 40 carbon atoms, L represents a bis-thioether radical, of general formula (IIla), bis-sulphoxide radical of general formula (IIlb), or bis-sulphone radical, of general formula (IIlc), or a bis-silane radical of general formula (IV) and wherein said polymer compound is intermolecularly, cross-linked in a tri-dimensional network and is insoluble in polar organic solvents. Katz et al. teach cross-linked polymer compound (crosslinked polysiloxanes) (see page 650, Table II, polymers). Katz et al.'s compound corresponds applicant's compound wherein L represents a bis-silane radical of general formula (IV) and wherein X is an oxygen atom, Y is a -CO- group, A is a single bond and R₅ is an alkyl (CH₃). Katz et al. does not explicitly describe the physical characteristics of the prepared cross-linked polymer compound or composition such as its solubility in solvents such as polar organic solvents. But, the silence of Katz et al. does not mean that the compound does not have these limitations Katz et al. anticipates the claims if their compound has all the claimed limitations. Katz et al. renders the claims as being obvious if compound or composition is substantially close in terms of having the claimed limitations. It should be noted that Katz et al.'s compound or composition is the same as

applicant's and should inherently have the same properties or effect of being a support material. Also, it should be noted that it is well settled that "intended use" of a composition or product, e.g., support material, does not further limit claims drawn to a composition or product. See, e.g., *Ex parte Marsham*, 2 USPQ2d 1647 (1987) and *In re Hack* 114, USPQ 161. Claims 3-5, which are drawn to said support material wherein the support material is of specific form or shape or specific % are also encompassed by this rejection since as set forth above the silence of Katz et al. does not mean that the compound does not have these limitations. Moreover, it should be noted that Katzi et al.'s compound or composition is the same as applicant's and should inherently have the same properties or effect of being a support material. Also, it should be noted that it is well settled that "intended use" of a composition or product, e.g., support material, does not further limit claims drawn to a composition or product. See, e.g., *Ex parte Marsham*, 2 USPQ2d 1647 (1987) and *In re Hack* 114, USPQ 161.

Claim 13 is drawn to a percolation membrane comprising a cross-linked polymer compound in a three-dimensional network, comprising a radical of general formula (II) wherein said polymer compound is intermolecularly, cross-linked in a tri-dimensional network and is insoluble in polar organic solvents.

Katz et al. teach cross-linked polymer compound (crosslinked polysiloxanes) (see page 650, Table II, polymers). Katz et al.'s compound corresponds applicant's compound wherein L represents a bis-silane radical of general formula (IV) and wherein X is an oxygen atom, Y is a -CO- group, A is a single bond and R₅ is an alkyl (CH₃). Katz et al. does not explicitly describe the physical characteristics of the prepared cross-linked polymer compound or composition such as its solubility in solvents such as polar organic solvents. But, the silence of

Katz et al. does not mean that the compound does not have these limitations. Katz et al. anticipates the claims if their compound has all the claimed limitations. Katz et al. renders the claims as being obvious if compound or composition is substantially close in terms of having the claimed limitations. It should be noted that Katz et al.'s compound or composition is the same as applicant's and should inherently have the same properties or effect of being a percolating membrane. Also, it should be noted that it is well settled that "intended use" of a composition or product, e.g., percolating membrane, does not further limit claims drawn to a composition or product. See, e.g., *Ex parte Marsham*, 2 USPQ2d 1647 (1987) and *In re Hack* 114, USPQ 161.

Claims 19 and 22 are drawn to said composition or support material consisting essentially of a cross-linked polymer compound in a three-dimensional network, comprising a radical of general formula (II) wherein said polymer compound is intermolecularly, cross-linked in a tri-dimensional network and is insoluble in polar organic solvents.

Katz et al. teach cross-linked polymer compound (crosslinked polysiloxanes) (see page 650, Table II, polymers). Katz et al.'s compound corresponds applicant's compound wherein L represents a bis-silane radical of general formula (IV) and wherein X is an oxygen atom, Y is a -CO- group, A is a single bond and R₅ is an alkyl (CH₃). Katz et al. does not explicitly describe the physical characteristics of the prepared cross-linked polymer compound or composition such as its solubility in solvents such as polar organic solvents. But, the silence of Katz et al. does not mean that the compound does not have these limitations. Katz et al. anticipates the claims if their compound has all the claimed limitations. Katz et al. renders the claims as being obvious if compound or composition is substantially close in terms of having the claimed limitations. It should be noted that Katz et al.'s compound or composition is the same as

applicant's and should inherently have the same properties or effect of being a support material. Also, it should be noted that it is well settled that "intended use" of a composition or product, e.g., support material, does not further limit claims drawn to a composition or product. See, e.g., *Ex parte Marsham*, 2 USPQ2d 1647 (1987) and *In re Hack* 114, USPQ 161.

Allowable Subject Matter

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Though the compound of the present invention are similar to the compounds of the prior art, the compounds of claim 17, 18, 20-23 and 26-30 possess structural differences to the compounds of prior art documents and these differences are not suggested in the prior art, nor are obvious over the prior art.

Response to Arguments

Applicant's arguments with respect to claims 2-5, 13, and 15 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8.30am-5pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Henry
March 13, 2010.

/Shaojia Anna Jiang/
Supervisory Patent Examiner
Art Unit 1623